CSCI 316 Principles of Programming Languages Exam 2 April 2020

Name: CUNYFirst ID Number:

void S( )

{

nextToken = la.getToken();

if (nextToken == PROCSYM)

{

nextToken = la.getToken();

if (nextToken == IDENT)

{

nextToken = la.getToken();

if (nextToken == ISSYM)

{

nextToken = la.getToken();

DecPart();

if (nextToken == BEGINSYM)

{

nextToken = la.getToken();

SeqOfStmt();

if (nextToken == ENDSYM)

{

nextToken = la.getToken();

if (nextToken == SEMICOLON)

{

nextToken = la.getToken();

if (nextToken == EOI)

Print(“Program syntactically correct.”);

else

error(“Did not reach the end of the file.”);

}

else

error(“Missing Semicolon.”);

}

else

error(“Missing End Symbol.”);

}

else

error(“Missing Begin Symbol.”);

}

else

error(“Missing Is Symbol.”);

}

else

error(“Missing an Identifier.”);

}

else

error(“Missing Procedure Symbol.”);

}

void DecPart( )

{

while (nextToken == IDENT) ObjectDec();

}

void ObjectDec()

{

nextToken = la.getToken();

while (nextToken == COMMA)

{

nextToken = la.getToken();

if (nextToken == IDENT)

nextToken = la.getToken();

else

error(“Missing an Identifier.”);

}

if (nextToken == COLON)

{

nextToken = la.getToken();

if (nextToken == BOOLSYM || nextToken == INTSYM)

{

nextToken = la.getToken();

if (nextToken == SEMICOLON)

nextToken = la.getToken();

else

error(“Missing Semicolon.”);

}

else

error(“Missing Boolean or Integer Symbol.”);

}

else

error(“Missing Colon.”);

}